

ADVANCED INFORMATION
Characteristics Subject to Change
Without Notice.

MXD2210	Military Temperature Range	-55°C to +125°C
IXD2210	Industrial Temperature Range	-40°C to +85°C
XD2210	Commercial Temperature Range	0°C to +70°C

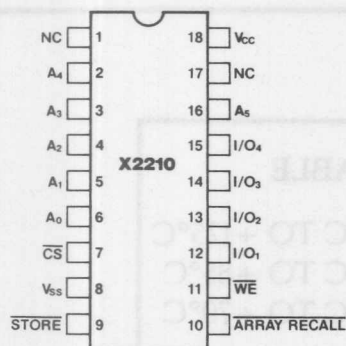
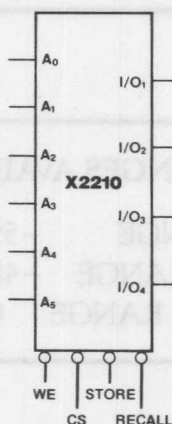
64 x 4 Bit Nonvolatile Static RAM
5V-Programmable

Extended Temperature Ranges

X2210-30

- ♦ **NONVOLATILE STATIC RAM:** The X2210 contains 512 bits of memory organized as a conventional 256 bit static RAM overlaid bit-for-bit with a nonvolatile 256 bit Electrically Erasable PROM (E²PROM). Nonvolatile data can be stored in the E²PROM and at the same time independent data can be accessed in the RAM memory. At any time, data can be transferred back-and-forth between the RAM and E²PROM by simple store and array recall signals.
- ♦ **5V-PROGRAMMABLE:** High-voltage pulses or supplies are never required. A single 5V supply is the only power source ever required for any function.
- ♦ **EASE-OF-USE:** Unprecedented simplicity, all inputs and outputs are directly TTL compatible. Fully static timing. 18-pin package.
- ♦ **PERFORMANCE:** RAM cycle time is less than 300 ns. During the lifetime of the device, data can be recalled from the E²PROM an unlimited number of times.
- ♦ **POWER-FAILURE PROTECTION:** One simple TTL signal saves the entire RAM database. A snapshot nonvolatile copy of all RAM data is internally stored safe without power and can be recalled to the RAM when power returns. No battery backup required.
- ♦ **ORGANIZED FOR MICROCOMPUTER SYSTEMS:** The common data input and output is organized four bits wide.

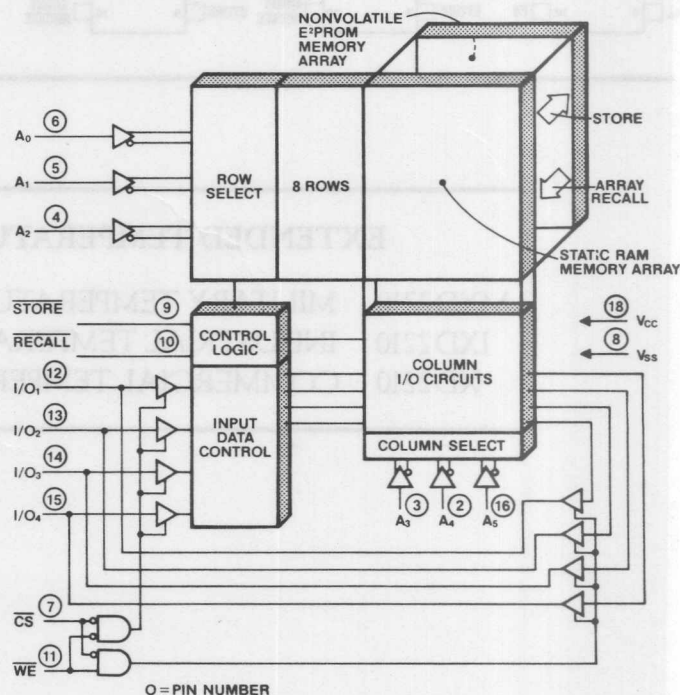
Xicor's X2210 is fabricated with reliable n-channel floating gate MOS technology. For systems where RAM nonvolatility or *in-the-circuit* ROM changes by TTL signals are important, the Xicor X2210 is an ideal choice.

PIN
CONFIGURATION
18 PIN DIP .300"LOGIC
SYMBOL

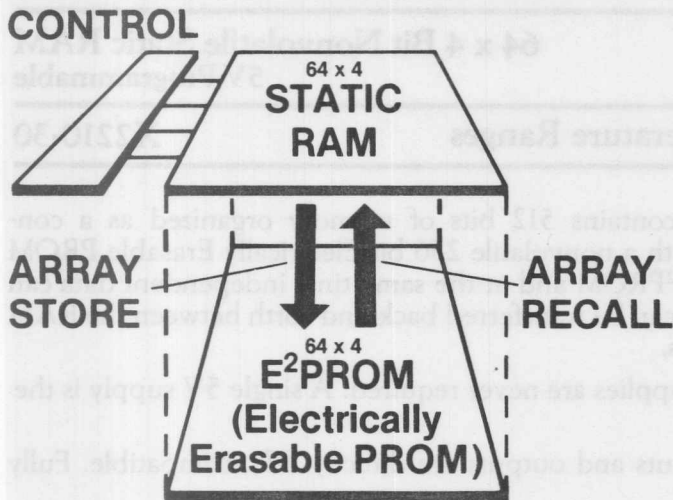
PIN NAMES

A ₀ - A ₅	ADDRESS INPUTS
I/O ₁ - I/O ₄	DATA INPUT/OUTPUT
WE	WRITE ENABLE
CS	CHIP SELECT
ARRAY RECALL	ARRAY RECALL
STORE	STORE
V _{CC}	+5V
V _{SS}	GROUND
NC	NO CONNECT

FUNCTIONAL DIAGRAM X2210 (64 x 4)

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Advanced data sheet effective July 1981

MEMORY ORGANIZATION



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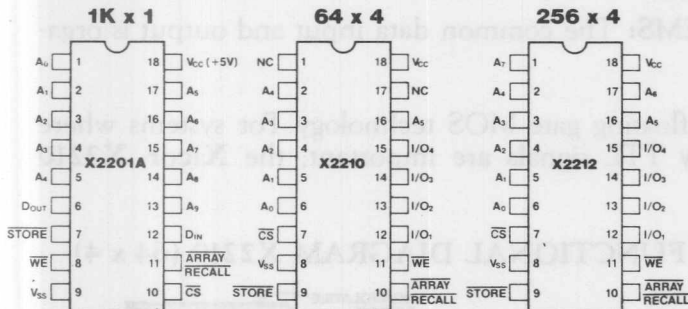
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A GROWING FAMILY OF NONVOLATILE STATIC RAMS

Available for immediate delivery, the X2201 is the first single 5V supply nonvolatile static RAM and is organized 1K x 1 bits. To meet the further needs of many microcomputer based systems two new nonvolatile RAMs complement the X2201. The X2210 is organized 64 x 4 bits; the X2212 is organized 256 x 4 bits. For maximum system design flexibility, the X2210 and X2212 have compatible pin-outs and can be exchanged in the same 18-pin socket.



EXTENDED TEMPERATURE RANGES AVAILABLE

MXD 2210	MILITARY TEMPERATURE RANGE	-55°C TO +125°C
IXD 2210	INDUSTRIAL TEMPERATURE RANGE	-40°C TO +85°C
XD 2210	COMMERCIAL TEMPERATURE RANGE	0°C TO +70°C